

WHAT IS CLAIMED IS:

1. A probe for optical communication with a device external to the probe, the probe comprising:

an optical receiver for receiving a light signal from an external device and generating a corresponding data signal; and

a voltage converter for converting a first voltage signal from a diagnostic tool coupled to the optical receiver to a second voltage signal, the second voltage signal being coupled to the optical receiver to operate the optical receiver in a high speed mode.

2. The probe of claim 1, wherein the first voltage signal is received from a power supply of the diagnostic tool and the voltage converter is an RS-232 voltage converter.

3. The probe of claim 1, wherein the first voltage signal is comprised of a +5V reference and a ground reference and the voltage converter generates a -12V reference from the first voltage signal.

4. The probe of claim 1, the optical receiver further comprising:

a phototransistor;

an amplifier coupled to the phototransistor; and

the second voltage signal being coupled to the amplifier to operate the amplifier in a high speed mode.

5. The probe of claim 4, wherein the second voltage signal is a negative potential reference signal.

6. The probe of claim 5 wherein the negative potential reference signal is at least a -12 V reference signal.

7. The probe of claim 4 wherein the second voltage signal is approximately a -12V signal.

8. A method for operating an optical receiver in a high speed mode for optical communication with an external device comprising:

converting a first voltage signal received from a diagnostic tool to a second voltage signal; and

coupling the second voltage signal to an optical receiver to operate the optical receiver in a high speed mode.

9. The method of claim 8, wherein the first voltage signal conversion converts a first voltage signal received from a power supply of the diagnostic tool to an RS-232 level signal.

10. The method of claim 8, wherein the first voltage signal conversion generates a -12V reference signal from a +5V reference and a ground reference.

11. The method of claim 8, wherein the second voltage signal coupling couples the second voltage signal to an amplifier of the optical receiver.

12. The method of claim 11, wherein the first voltage signal conversion generates a negative potential reference signal.

13. The method of claim 12, wherein the first voltage signal conversion generates a second voltage signal having a negative potential of at least - 12V.

14. The system of claim 11 wherein the first voltage signal conversion generates a second voltage signal having a negative potential of approximately - 12V.

15. A diagnostic system that communicates with an appliance through a low intensity optical interface comprising:

a diagnostic tool including a communication interface; and

a communication probe including a voltage converter coupled to the communication interface of the diagnostic tool through an electrical cable, the voltage converter for converting a first voltage signal to a second voltage signal, the communication probe also including an optical receiver coupled to the voltage converter so that the second voltage signal operates the optical receiver in a high speed mode.

16. The system of claim 15, wherein the diagnostic tool is a handheld computer.

17. The system of claim 15, wherein the diagnostic tool is a personal digital assistant.

18. The system of claim 15 wherein the communication interface is coupled to the power supply of the diagnostic tool.

19. The system of claim 15 wherein the voltage converter is an RS-232 interface integrated circuit that generates a -12V signal for coupling to the optical receiver.

20. The system of claim 15, the optical receiver further comprising:
- a phototransistor;
 - an amplifier coupled to the phototransistor; and
 - the -12V signal is coupled to the amplifier to operate the amplifier in a high speed mode.